

A SERVICE PROCESSOR WITH ALGORITHMS FOR  
SUPPORTING A MULTI PARTITION COMPUTER POWER MANAGEMENT

ABSTRACT OF THE DISCLOSURE

The inventive multiple partition computer system allows the reconfiguration of the installed hardware, possibly while the various partitions continue normal operations. This aspect includes adding and removing process cell boards and I/O from partitions which may or may not continue to run. The invention also allows changes to the association between  
5 cells, I/O and partitions. The partitions may be able to stay running, or may have to be shut down from the resulting changes. In the invention, multiple copies of the OS are running independently of each other, each in a partition that has its own cell boards with processors and memory and connected I/O. This provides isolation between different applications. Consequently, a fatal error in one partition would not affect the other partitions. A network  
10 of micro-controllers connected to a service processor, via a communications link, provides the service processor with information on each of the different cells, as well as a pathway to receive requests for configuration changes, and a pathway to command changes in the different cells or I/O. The invention allows system control features such as power on/off, status display, etc. for multiple cabinets under control of the service processor.